



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/665,310 | 09/19/2003 | Keith A. Frost | 2002-Ip-007134 | 6197 |

7590 08/02/2005

Robert A. Kent
Halliburton Energy Services
2600 South 2nd Street
Duncan, OK 73536

| |
|----------|
| EXAMINER |
|----------|

FULLER, BRYAN A

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

3676

DATE MAILED: 08/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/665,310

Applicant(s)

FROST ET AL.

Examiner

Bryan A. Fuller

Art Unit

3676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) 34-54 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-54 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/19/03 & 2/14/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1 - 33, drawn to a method of treating a subterranean zone, classified in class 166, subclass 312.
 - II. Claims 34 - 54, drawn to a treating fluid used in subterranean zones, classified in class 507, subclass 213.
2. The inventions are distinct, each from the other because:
3. Inventions II and I are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product can be used in fracturing processes, gravel packing processes, or in the treatment, consolidation, or stabilization of surface soil.
4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
5. During a telephone conversation with Robert Kent on 7/25/2005 a provisional election was made with out traverse to prosecute the invention of Group I claims 1 - 33. Affirmation of this election must be made by applicant in replying to this Office action.

Art Unit: 3676

Claims 34 – 54 are withdrawn from further consideration by the examiner, 37

CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1 – 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Dobson, Jr. et al (5,783,527).

With respect to claims 1, 13, and 22: Dobson, Jr. et al teaches in column 3, line 7 – column 8, line 51 a method of treating a subterranean zone, comprising: providing a water-based, viscous treating fluid composition comprising water, a viscosity increasing polymer and a water-soluble strongly delayed polymer breaker composition, comprising a hydrogen peroxide source, a ferrous ion source and a chelating agent; introducing the viscous treating fluid composition into the subterranean zone by way of an open hole well bore penetrating the subterranean zone, wherein the well bore has filter cake on the walls thereof and allowing the strongly delayed polymer breaker composition in the viscous treating fluid to break the viscous treating fluid and the filter cake whereby the broken treating fluid and the broken filter cake can be removed from the subterranean zone.

Art Unit: 3676

With respect to claims 2, 14, and 23: Dobson, Jr. et al teaches in column 4, line 53 – column 5, line 19 a method wherein the hydrogen peroxide source is selected from the group consisting of sodium perborate tetrahydrate and hydrogen peroxide.

With respect to claims 3, 15, and 24: Dobson, Jr. et al teaches in column 8, lines 37 – 51 a method wherein the ferrous ion source is selected from the group consisting of iron (II) sulfate heptahydrate, iron (II) chloride and iron (II) gluconate.

With respect to claims 4, 16, and 25: Dobson, Jr. et al teaches in column 7, lines 50 – 59 a method wherein the chelating agent is selected from the group consisting of citric acid, sodium citrate and iminodiacetic acid.

With respect to claims 5, 17, and 26: Dobson, Jr. et al teaches in column 8, line 52 – column 9, line 3 a method wherein the water-soluble, strongly delayed polymer breaker composition comprises a molar excess of the chelating agent relative to the ferrous ion source.

With respect to claims 6, 18, and 27: Dobson, Jr. et al teaches in column 8, line 52 – column 9, line 3 a method wherein the water-soluble, strongly delayed polymer breaker composition comprises a molar ratio of the chelating agent to the ferrous ion source of from 3:1 to 6:1.

With respect to claims 7, 19, and 28: Dobson, Jr. et al teaches in column 4, lines 27 – 37 a method wherein the water-soluble, strongly delayed polymer breaker composition further comprises sodium chloride.

Art Unit: 3676

With respect to claims 8, 20, and 29: Dobson, Jr. et al teaches in column 7, lines 50 – 59 a method wherein the water-soluble, strongly delayed polymer breaker composition has a pH in the range of from about 3 to about 7.

With respect to claims 9 and 30: Dobson, Jr. et al teaches in column 5, line 62 – column 6, line 18 a method wherein the viscosity increasing polymer comprises a polysaccharide.

With respect to claims 10 and 31: Dobson, Jr. et al teaches in column 5, line 62 – column 6, line 18 a method wherein the viscosity increasing polymer comprises a polysaccharide selected from the group consisting of biopolymers and modified gums or celluloses and derivatives thereof.

With respect to claims 11 and 32: Dobson, Jr. et al teaches in column 5, line 62 – column 6, line 18 a method wherein the viscosity increasing polymer comprises xanthan gum.

With respect to claims 12, 21, and 33: Dobson, Jr. et al teaches in column 7, lines 50 – 59 a method wherein the temperature of the subterranean zone ranges from about 80°F to about 150°F.

Conclusion


8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ballard et al (US 2003/0114314) teaches the use of a breaker composition on a polysaccharide polymer filter cake containing a peroxide.

Art Unit: 3676

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryan A. Fuller whose telephone number is (571) 272-8119. The examiner can normally be reached on M - Th 7:30 - 5:00 and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian E. Glessner can be reached on (571) 272-6843. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Brian E. Glessner
Supervisory Patent Examiner
Art Unit 3676

baf